

## CLAIMS

What is claimed is:

1. A digital video recording and playback method adapted for  
5 "live-pause" recording and playback, said method comprising the steps of:

a) providing at least one electronic audio-visual program source;

b) via a program guide source, at least providing program length in-  
formation about a program of interest;

c) converting said program length information into a corresponding  
10 buffer memory size;

d) establishing a buffer memory matching the buffer memory size  
determined in step c); and

e) recording a selected program in the buffer memory established in  
step d);

15 wherein said buffer memory size matches the size needed to record  
said program of interest.

2. The method in Claim 1, wherein said program length informa-  
tion comprises the scheduled end time of a program of interest.

3. The method in Claim 1, wherein said program length informa-  
20 tion comprises the scheduled start time of a program of interest.

4. The method in Claim 1, further comprising the step of:  
at the direction of a user, designating a program stored in said buffer  
memory for long-term storage.

5. The method in Claim 1, wherein for programs of indefinite  
length, said program length information comprises as a default, a fixed  
length.

6. The method in Claim 1, further comprising the step of:  
releasing said established buffer memory from recording a current  
program, and making its memory space available to part of another buffer  
memory if needed, when the current program has been recorded.

7. The method in Claim 1, further comprising the step of:  
releasing said established buffer memory from recording a current  
program, and making its memory space available to part of another buffer  
memory if needed, when a user tunes in to another program.

8. The method in Claim 1, further comprising the step of:  
releasing said established buffer memory from recording a current  
program, and making its memory space available to part of another buffer  
memory if needed, when a user directs that recording be halted.

9. A digital video recording and playback system adapted for  
"live-pause" recording and playback, said system comprising:

a) at least one electronic audio-visual program source;

b) a program guide source adapted to at least provide program length information about a program of interest;

c) a converter adapted to convert said program length information into  
5 a corresponding buffer memory size; and

d) at least one buffer memory established and sized to match that determined by said converter, said buffer memory being adapted to record a selected program;

wherein said buffer memory size matches the size needed to record a  
10 program of interest.

10. The system in Claim 9, wherein said program length information comprises the scheduled end time of a program of interest.

11. The system in Claim 9, wherein said program length information comprises the scheduled start time of a program of interest.

12. The system in Claim 9, wherein said established buffer memory  
15 is adapted to become, at the direction of a user, part of a long-term memory for the long-term storage of a program stored therein.

13. The system in Claim 9, wherein for programs of indefinite  
length, said program length information comprises as a default, a fixed  
20 length.

14. The system in Claim 9, wherein said established buffer memory is adapted to be released from recording a current program, and making its memory space available to part of another buffer memory if needed, when the current program has been recorded.

5 15. The system in Claim 9, wherein said established buffer memory is adapted to be released from recording a current program, and making its memory space available to part of another buffer memory if needed, when a user tunes in to another program.

10 16. The system in Claim 9, wherein said established buffer memory is adapted to be released from recording a current program, and making its memory space available to part of another buffer memory if needed, when a user directs that recording be halted.

17. A digital video recording and playback method adapted for "live-pause" recording and playback, said method comprising the steps of:

- 15 a) providing at least one electronic audio-visual program source;
- b) adaptively establishing a buffer memory having a size adequate to record a program of interest; and
- c) recording a selected program in the buffer memory established in step b).

18. The method in Claim 17, wherein the size of said buffer memory is set to one of a plurality of fixed sizes to match an estimated size of a program of interest.

19. The method in Claim 17, further comprising the step of:

5 at the direction of a user, designating a program stored in said buffer memory for long-term storage.

20. The method in Claim 17, further comprising the step of:

releasing said established buffer memory from recording a current program, and making its memory space available to part of another buffer  
10 memory if needed, when the current program has been recorded.

21. The method in Claim 17, further comprising the step of:

releasing said established buffer memory from recording a current program, and making its memory space available to part of another buffer  
memory if needed, when a user tunes in to another program.

22. The method in Claim 17, further comprising the step of:

releasing said established buffer memory from recording a current program, and making its memory space available to part of another buffer  
memory if needed, when a user directs that recording be halted.

23. A digital video recording and playback system adapted for

20 "live-pause" recording and playback, said system comprising:

- a) at least one electronic audio-visual program source; and
- b) at least one adaptively established buffer memory having a size adequate to record a program of interest;

wherein said buffer memory is adapted to record a selected program.

5        24.    The system in Claim 23, wherein the size of said buffer memory is set to one of a plurality of fixed sizes to match an estimated size of a program of interest.

10       25.    The system in Claim 23, wherein said established buffer memory is adapted to become, at the direction of a user, part of a long-term memory for the long-term storage of a program stored therein.

15       26.    The system in Claim 23, wherein said established buffer memory is adapted to be released from recording a current program, and making its memory space available to part of another buffer memory if needed, when the current program has been recorded.

20       27.    The system in Claim 23, wherein said established buffer memory is adapted to be released from recording a current program, and making its memory space available to part of another buffer memory if needed, when a user tunes in to another program.

25       28.    The system in Claim 23, wherein said established buffer memory is adapted to be released from recording a current program, and making

its memory space available to part of another buffer memory if needed,  
when a user directs that recording be halted.

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